

# PATENT SPECIFICATION

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## (54) IMPROVEMENTS IN OR RELATING TO CLEANING APPLIANCES

(71) I, WILLIAM HENRY CLINKARD, British Nationality, of 'Magnolia', 78, St. Helens Road, Ormskirk, Lancashire, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

10 This invention relates to cleaning appliances, more particularly, although of course not exclusively, for domestic use in the cleaning of floors, walls, windows and other surfaces, and has for its object an improved form of cleaning appliance embodying an adjustable and readily renewable cleaning pad. A further object is to provide such a cleaning appliance which does not require the use of extraneous clips, fasteners or screws in the attachment of said cleaning pad. A yet further object is to provide simple and effective means whereby a cleaning appliance according to the invention may readily be squeezed free of washing liquid.

25 Broadly, according to the invention, a cleaning appliance for the purpose specified comprises a trough-like holder of V-shaped cross-section for a sleeve or pad of cleaning material, said holder having inwardly flanged upper edges, a wedge-piece for fitting between the walls of said sleeve or pad holder, and a handle attached to said wedge-piece.

35 According to a particular embodiment, said wedge-piece is pivotally attached to a handle of appropriate length, and said cleaning material is an elongated pad of a resilient, liquid-absorbing material, for example sponge rubber or a foamed plastics composition. Preferably said pad is in the form of an endless band or sleeve.

40 In use, the resilient pad is placed around the holder and clamped in place by means of the wedge-piece which is pressed between the arms of the holder so as to

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clamp portions of the pad between it and the flanged parts of said holder. Thus assembled, there is provided an effective dual-sided cleaning head eminently suited to the cleaning of floors, walls and other surfaces. Further, said head can be readily squeezed free of washing liquid by simply pressing same within an optionally provided perforate wringing device of V-shaped cross-section. Said wringing device may be incorporated within or adapted for incorporation in a bucket or other liquid receptacle.

The invention is further described with the aid of the explanatory drawings accompanying the Provisional Specification which illustrate, by way of example only and not of limitation, one embodiment.

In said drawings:—

Figure 1 is an exploded perspective view of a cleaning appliance according to the invention, and

Figure 2 is a cross-section of the appliance together with a preferred form of a wringing device.

Referring to said drawings, the cleaning appliance basically comprises a wedge-piece 10, a holder 20, and an absorbent pad of cleaning material 30.

The wedge-piece 10 is of rectangular shape in plan, and comprises side edges 11 which are downwardly convergent or chamfered as shown. Said wedge-piece 10 is pivotally attached to a handle 12, e.g. of tubular metal or plastics by means of a pin 13 extending through a flattened end portion 12a of said handle 12 and through angled lugs 14 attached to the said wedge-piece 10 by means of screws 15. If made of a plastics composition said wedge-piece 10 and lugs 14 may be of unitary construction. Preferably means (not shown) may be provided to limit angular displacement of the handle 12 relative to the wedge-piece 10, for example stop members provided on said wedge-piece 10.

The holder 20 is of V-shaped cross-section and of a length corresponding with that of the wedge-piece 10. The holder is composed of a material, e.g. a suitable plastics or sheet metal, which is of resilient spring-like character and is formed or provided with inwardly turned flanges or lips 21, 22.

The cleaning material or pad 30, preferably, although not essentially, is in the form of an endless band or sleeve, and may be composed of a foamed plastics material, sponge rubber, wash leather, or any other soft or resilient liquid absorbent material suitable for cleaning purposes. The width of the cleaning material 30 may be slightly greater than that of the holder 20 in order to prevent any danger of the edges of said head coming into damaging contact with the surfaces being cleaned.

In use, the cleaning material 30 is attached securely in operative position to the holder 20 and handle 12 by simply springing the wedge-piece 10 between the walls of the said holder so as to grip portions of the material 30 between the chamfered side edges 11 of said wedge-piece and the flanged upper edges 22 of the holder as shown most clearly in Figure 2.

If desired, and to enhance the gripping action of the holder 20 on the wedge-piece 10, extension spring elements as 23 extending between the walls of said holder 20 may be provided.

In order to enable an effective wringing out of the cleaning pad 30, there preferably is provided a perforate device 40, of V-shaped cross-section, which may be supported transversely of a bucket or other liquid receptacle 43 for example on cross-members 41, 42. Such a device provides simple but effective means whereby liquid can be expelled from the cleaning pad 30 by simply pressing said pad downwardly within the device 40 as indicated by the arrow in Figure 2.

It will be seen that when the wedge-piece 10 is detached from the holder 20, the pad 30 can readily be adjusted so as to present a fresh working surface in operative position whereby its useful life is considerably extended.

#### WHAT I CLAIM IS:—

1. A cleaning appliance for the purpose specified, comprising a trough-like holder of V-shaped cross-section for a sleeve or pad of cleaning material, said holder having in-

wardly flanged upper edges, a wedge-piece for fitting between the walls of said sleeve or pad holder, and a handle attached to said wedge-piece.

2. A cleaning appliance, as claimed in claim 1, wherein said wedge piece is rectangular in plan, has downwardly convergent side edges, and said handle is pivotally attached to said wedge-piece.

3. A cleaning appliance, as claimed in claim 2, wherein means are provided for limiting angular displacement of said handle relative to said wedge-piece.

4. A cleaning appliance, as claimed in any of the preceding claims, wherein said V-sectioned holder is composed of a resilient material which permits of said wedge-piece being spring engaged between the walls thereof below said returned upper flanges thereby to attach cleaning material fitted to said holder in operative position.

5. A cleaning appliance, as claimed in any of the preceding claims, wherein spring elements are provided between the walls of said holder to enhance the gripping action of the holder on the wedge-piece.

6. A cleaning appliance as claimed in any of the preceding claims, wherein said holder is fitted with a sleeve of a resilient absorbent material whereby when said wedge-piece is detached from said holder a fresh working surface can be presented for use in operative position by adjustment of said sleeve.

7. A cleaning appliance, as claimed in claim 6, wherein said sleeve is of a width greater than that of said holder.

8. A cleaning appliance, as claimed in any of the preceding claims, including means for effecting wringing-out of the cleaning material, said means comprising a perforate device of V-shaped cross section fitted or adapted for fitment to a liquid receptacle.

9. A cleaning appliance, with or without wring out means, substantially as hereinbefore described with reference to the drawings accompanying the Provisional Specification.

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